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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION N
09/964,229	09/25/2001	Vaughn R. Marian	2001P 16465 US	1823
7590	10/07/2004			
Siemens Corporation Intellectual Property Department 186 Wood Avenue South Iselin, NJ 08830				
			EXAMINER	
			JUNG, WILLIAM C	
		ART UNIT	PAPER NUMBER	
		3737	//	

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/964,229

Applicant(s)

MARIAN, VAUGHN R.

Examiner

William Jung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed January 23, 2004 have been fully considered but they are not persuasive.

Regarding page 1 and 2, paragraphs 2-6 of the remarks with respect to claims 1-5, 11-15, 19-22, 25, and 26, the requirement of memory-less adaptable section is met in Salmon et al. Salmon et al specifically point out that the probe as a whole is a flexible and bends to position the probe during invasive procedure such as intraoperative or endocavity insertion of the probe into a patient. Furthermore, Salmon et al explicitly teach all claimed features in claims 1, 11, and 19 where the probe includes a transducer, a handling housing, and adjustable or adaptable section joining the transducer and the handle section with flexible covering and a device to maintain a adjusted bent position of the transducer housing relative to the handle where the adjusting of the adaptable section is achieved without wires. As per argument of the stainless steel utilized by Salmon et al is irrelevant to the claimed invention since, steel is a non-spring material, it is memory-less. In addition, Salmon et al specifically disclose that the radially scanning of the ultrasound signal is achieved by rotating the first axis of the transducer housing 40 relative to the second axis 10 of a handle while the transducer is within the cavity (col. 6, lines 36-44).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1-5, 11-15, and 19-22, 25, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by *Salmon et al* (US 5,503,155).

Salmon et al anticipate of all claimed invention in claims 1-5, 11-15, 19-22, 25, and 26. Salmon et al disclose of an ultrasound probe apparatus and method where the probe is designed for insertion into a patient. The probe consists of handle section 48 and transducer section 42 with the adaptable section operable to bend and maintain the position of the handle section relative to the transducer section without steering wires. The bending operation of the system is memory-less (col. 1, lines 42-63; col. 2, lines 37-40, col. 6, lines 17-44).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Salmon et al* as applied to claims 1 and 5 above, and further in view of *Bernstein et al* (US 5,163,421).

Salmon et al substantially disclose of all claimed invention in claim 6 where the material of Salmon et al's device is a nondescript metal. Bernstein teaches that a flexible catheter probe where the metal shaft of the probe may be made of aluminum (col. 6, line 1-56). The motivation of Bernstein's catheter design was to provide flexible apparatus, which can be insertable in body, more specifically designed to use in vivo ultrasonic angioplasty. Bernstein and Salmon et al share same motivation of designing flexible catheter, which can for insertion into a patient. Therefore, it would have been obvious to one having an ordinary skill at the time the invention

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was made to combine the teachings of Salmon et al to the teachings of Bernstein to apply the flexible or malleable metal in Salmon et al to the Bernstein's use of aluminum to achieve the claimed invention.

6. Claims 7, 8, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Salmon et al* as applied to claim 1, 11, and 19 above, and further in view of *Lemelson* (US 5,845,646) and *Ben-Haim* (US 6,083,170).

Salmon et al substantially disclose of all claimed invention in claims 7, 8, 16, and 23. Lemelson discloses of flexible catheter where the bending of the catheter is controlled by ball joint and tensioned wire (col. 13 line 8- 27). In addition, Ben-Haim has demonstrated that the mechanics of catheter tip manipulation can be interchanged from one design to another (as described in previous action), therefore, it would have been obvious to one having an ordinary skill at the time the invention was made to apply the teachings of Salmon et al to the teachings of Lemelson's ball joint and tensioned wire and Ben-Haim's interchangeable catheter tip to achieve the claimed invention.

7. Claims 9, 10, 17, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Salmon et al* as applied to claims 1, 11, and 19 above, and further in view of *Flesh* (US 5,681,263) and *Ben-Haim*.

Salmon et al substantially disclose of all claimed invention in claims 9, 10, 17, 18, and 24. Flesch discloses of endoscopic ultrasound catheter/probe where the flexible portion of the probe is made of elastomers. In addition, the control of the probe's flexible portion has latch 34 with notched portion 36 connected to the transducer portion and the handle portion as shown in figures 1-3 (col. 3, line 7-28). Ben-Haim has demonstrated that the mechanics of catheter tip

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manipulation can be interchanged from one design to another, therefore, it would have been obvious to one having an ordinary skill at the time the invention was made to apply the teachings of Salmon et al to the teachings of Flesch and Ben-Haim to achieve the claimed invention.

***Conclusion***

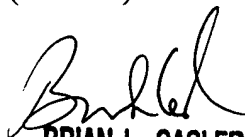
Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung, Ph.D. whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 703-308-3552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJ

September 30, 2004

  
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